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60/565,680 26 April 2004 (26.04.2004) US(71) Applicant: GENENCOR INTERNATIONAL, INC.
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(54) Title: POPULATION BASED PREDICTION METHODS FOR IMMUNE RESPONSE DETERMINATIONS AND METHODS FOR VERIFYING IMMUNOLOGICAL RESPONSE DATA

Protein	nM IC ₅₀ For Binding To Purified HLA									
	DR1	DR3	DR4	DR4	DR5	DR7	DR8	DR9	DR11	DR12
BPN Y217L.70	6.5	8737	33	5.7	168	154	1711	48	2382	80
BPN Y217L.109	8.8	—	30	168	37	59	2192	43	3019	1235
B. lentus 157	1055	16,433	4794	7575	6784	724	>16,333	1484	—	—
B. lentus .160	13	—	142	5542	1348	138	2033	164	5554	—

DRB1		DRB3/4/5			DQ			Degeneracy	
*1302 (DR8w19)	*1501 (DR2w23)	DRB3*0101 (DR52a)	DRB4*0101 (DRw53)	DRB5*0101 (DR2w22)	DQA1*0501/ DQB1*0201 (DQ2)	DQA1*0301/ DQB1*0301 (DQ3.1)	DQA1*0301/ DQB1*0302 (DQ3.2)	n/18	
0.69	21	2010	31	15,639	670	440	2059	12	
9.8	693	119	1071	1024	97	2182	80	11	
209	865	>6434	>6657	—	6157	6009	5009	2	
559	127	6157	8257	1726	1296	63	1046	7	

(57) Abstract: The present invention provides means to assess immune response profiles of populations. In particular, the present invention provides means to qualitatively assess the immune response of human populations, wherein the immune response directed against any protein of interest is analyzed. The present invention further provides means to rank proteins based on their relative immunogenicity. In further embodiments, the present invention provides means for verifying immunological response data, as well as means for predicting immune responses directed against any antigen/immunogen. In addition, the present invention provides means to create proteins with reduced immunogenicity for use in various applications.

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